Mental Health in Primary Care: An audit of psychiatric disorders seen at Kraaifontein Community Health Centre, Cape Town

Mellisa D. Presence- Vollenhoven. Vanessa Lomas- Marais and Bob Mash

Abstract:

Background: The purpose of this study was to identify the mental disorders treated by a primary care mental health service in a clinic in the Cape Town Metropole. There is very little data on primary care psychiatry in the Western Cape and this study has shed light on the prevalence of mental health conditions managed by mental health services at this level.

Aims and Objectives: The aim of this study was to identify the conditions diagnosed in patients treated at Kraaifontein Community Health Centre's Mental Health Clinic from 2010 to 2014. The specific objectives were to describe the demographics of the patient population at the clinic; to evaluate the type and frequency of psychiatric conditions treated; to evaluate the role of the nurse vs. the role of the doctor in these consultations; to evaluate the original source of referral to the clinic; to evaluate the presence of co-morbid medical disorders; to determine the treatment outcomes of these patients during this period and to look for trends in the above indicators over time.

Method: This was a descriptive study, by means of a retrospective audit of the medical records of mental health care users, who attended the mental health clinic at Kraaifontein CHC from 2010 to 2014. A representative sample of the records was included in this study for this period and stratified random sampling was used to select 50 folders from within each year cohort. No exclusion criteria were used.

Results: The mood disorders and psychosis were the most frequent diagnoses in this study, which differed from previous population based studies, where the anxiety disorders were more prevalent (together with mood and substance abuse disorders). Findings of this study has further highlighted the fact that apart from their psychiatric diagnosis, almost a third of mental health patients at this clinic had concomitant co- morbid disorders and unemployment was high. This study has revealed the need for further improvements at primary care level, for example, screening for early illness, substance abuse interventions and psycho-social rehabilitation.

Conclusions: Primary Healthcare Psychiatry plays a significant role in the management of mentally ill patients and helps facilitate the access to other mental health services, including higher levels of care. A comprehensive mental health service, including social work support, is needed.

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"Declaration

I, the undersigned, hereby declare that the work contained in this assignment is my original work and that I have not previously submitted it, in its entirety or in part, at any university for a degree. I also declare that ethical approval for the study was obtained from the Health Research Ethics Committee of Stellenbosch University (Reference number: S14/11/264)

Signature: Date: 11 January 2017 "

Research Protocol: Mellisa Vollenhoven US: 13591894

Project Title:

Mental Health in Primary Care: An audit of psychiatric disorders seen at Kraaifontein CHC, Cape Town

Introduction:

Mental illness is an increasingly important cause of disability worldwide and is significantly more disabling than physical illness. (1;2) Currently the contribution of psychiatric conditions to the burden of disease continues to increase (1;2;3;5;7;8) and is the third highest contributor to the burden of disease following HIV and other infective disorders. (4; 9) There is also growing evidence to suggest strong bidirectional relationships between mental and physical ill-health. (1;2;3;5;7;8;9)

Globally it is estimated that the lifetime DSM-IV disorder prevalence, (combining anxiety; mood; externalizing, and substance use disorders) is 18.1% to 36.1%. (10) In a systematic review by Kingston et.al in Australia, mood and anxiety disorders were most prevalent with depression ranging from 27% to 85% and general anxiety disorder ranging from 1% to 75%. Prevalence estimates for current mental disorders in substance use treatment clients varied from 47% to 100%. (11)

In South Africa, the most prevalent lifetime DSM-IV disorders are alcohol abuse (11,4%), major depression (9.8%) and agoraphobia (9.8%) with estimated lifetime prevalence of any disorder of 30.3%. (5;6) It is estimated that 1 in 6 South Africans are likely to experience a mental disorder in the current year. (5;12) Many factors have contributed to the increase in prevalence of mental disorders in South Africa. These include civil strife, communicable diseases such as HIV and urbanization. (9;13) According to a study by Motsohi, et al. which was performed in a primary care setting in Cape Town, Schizophrenia and Depression, followed by Bipolar Disorder were identified as the most frequent mental illnesses treated in primary care. Co-morbid chronic conditions were present in 45,6% and 46,6% were considered to be stable enough to receive medication from the chronic dispensing unit. (14) Increased use of substances is also contributing to the mental health burden. Already in 2009, a study by Weich and Pienaar which was performed among in-patients at a psychiatric hospital in Cape Town, found that 51% of patients had co-morbid substance use disorder (i.e. not just use) in addition to their primary mental disorder, and 8% had a mental illness directly due to substance abuse. (15)

Despite mental illness becoming more prevalent in South Africa, the country lacks many of the necessary resources and policies needed to execute an effective mental health service. (16) A recent primary care morbidity survey demonstrated that common mental disorders such as depression and anxiety are rarely diagnosed in primary care. (17) Historically, more attention has been paid to the acute

or psychotic psychiatric disorders, yet even the approach to treating these disorders has changed over the years. Health services have moved away from institution-based care to integrating patients back into primary care for follow-up. [9;16;18;19] This transition depends mostly on nurses with advanced psychiatry training to provide the follow-up in community health centres or clinics. A systematic review by Petersen showed that despite the fact that some progress has been made in the decentralisation of mental health service provision in South Africa, there are still substantial gaps in service delivery. These include insufficient resources to adequately support community- based services, resulting in frequent readmissions of some patients, particularly those with poor social support. [16] As in other countries, non-governmental organisations are helping to meet these needs by providing various mental health services, for example, out-patient substance rehabilitation. [19-22] Cape Mental Health is an example of a registered non- profit organisation in the Cape Metropole that provides supportive mental health services in the Western Cape. [23]

In many African communities, a large number of patients with mental problems are treated by traditional health practitioners, albeit with a different clinical method and approach compared to western medicine. [24] The use of complementary medicines and consultations with traditional healers is also widely acknowledged in low income countries, such as India. [25] This is still prevalent in some areas of South Africa today, including urban communities within the Cape Town Metropole.

Despite the knowledge we have concerning mental health conditions in South Africa from the above mentioned studies, no comprehensive audits of mental health morbidity and prevalence at primary care level have been published in South Africa, and this remains a question that clinicians and healthcare managers would like to answer.

Purpose of study:

The purpose of this study is to identify the mental disorders treated by a primary care mental health service in a clinic in the Cape Town Metropole. There is very little data on primary care psychiatry in the Western Cape (only head counts are captured on routine monthly reports) and this study will shed light on the prevalence of mental health conditions managed by mental health services at this level. The study may also help identify gaps in the current service and ways of providing a more integrated, comprehensive service.

Aim and Objectives:

The aim of this study is to identify the conditions diagnosed in patients treated at Kraaifontein Community Health Centre's Mental Health Clinic from 2010 to 2014.

The specific objectives are:

- To describe the demographics of the patient population at the clinic.
- To evaluate the type and frequency of psychiatric conditions treated.
- To evaluate the role of the nurse vs. the role of the doctor in these consultations.
- To evaluate the original source of referral to the clinic i.e. from primary care providers or from psychiatric hospitals.
- To evaluate the presence of co-morbid medical disorders.
- To determine the treatment outcomes of these patients during this period i.e. discharged, transferred, lost to follow up, continuing chronic treatment, referred.
- To look for trends in the above indicators over time.

Methods:

Study Design:

This is a descriptive study, by means of a retrospective audit of the medical records of mental health care users, who attended the mental health clinic at Kraaifontein Community Health Centre (CHC) from 2010 to 2014.

Setting:

The study was performed at Kraaifontein CHC. Kraaifontein is a town in the Northern suburbs of the Cape Town Metropole. According to the South African 2011 census, Kraaifontein has a population of 62 933 people. The population is predominantly white (46%), coloured (42%), and the black population is a relatively smaller 9.2%. Afrikaans (57%), English (14%) and Xhosa (14%) are the predominant languages spoken in the community. Religious affiliations for the area are characterized by the majority being affiliated with Christianity (82%); Islam 1% and about 15% of the population did not indicate any religious affiliation.

About 64% of the population of Kraaifontein aged 20 years and older have completed grade 12 or higher and approximately 92% of those aged between 15 to 64 years are employed. 22% of households have a monthly income of R3200 or less. The majority of households live in formal

dwellings with access to piped water inside their house or outside in their yard and 97% of households have access to a flush toilet connected to the public sewerage system. [29]

Kraaifontein CHC delivers a 24-hour emergency service, as well as a comprehensive primary health service to the community. It has a midwife-obstetric unit and Antenatal clinic; an Outpatient department where acute and chronic patients are seen, an ARV clinic; a Dental clinic and Mental Health outpatient clinic. The CHC has 7 permanent doctors; 1 community service doctor, 2 intern doctors and 8 clinical nurse practitioners, as well as other nursing and support staff, who deliver the service to the community. Currently there is no social worker at this clinic and patients require referral to community social workers linked to the department of social development. However, this clinic has an on-site occupational therapist, speech therapist, physiotherapist and dietician.

The Mental Health Clinic at Kraaifontein CHC runs from Monday to Thursday. It is staffed by 1 registered specialist nurse with advanced psychiatry training, 1 registered nurse, a Psychiatry Registrar who visits the clinic once a week to discuss complicated cases, 1 Community Psychiatrist who assists telephonically and 1 medical intern who visits the clinic once a week. The mental health clinic also has 4 nursing students who train at Kraaifontein CHC. The nursing staff are the primary access to the psychiatry services and aim to keep chronic patients stable and integrated in the community.

Study Population:

A representative sample of the records was included in this study for the period 2010 to 2014. Stratified random sampling was used and all folders were stratified by year. Fifty folders were randomly selected from within each year cohort by an independent statistician. The study is purely descriptive, therefore statistical power and sample size was not initially considered. Instead, it was ensured that the sample was a representation of the patient population. All patients attending the mental health clinic were represented in this study and no exclusion criteria were used.

Data Collection and Analysis:

A Microsoft Excel database was used to capture the data. The researcher collected and entered the data. Data was analysed by an independent statistician using IBM SPSS Statistics version 24 (2015). The aims and objectives of this study were descriptive in nature, thus most analysis techniques were descriptive. Means and Standard deviations were used to describe continuous variables that were normally distributed (e.g. Age) and medians and interquartile ranges were used to describe continuous data that were not normally distributed or ordinal variables. Ages for the different cohorts were divided into 3 groups comprising 1 group younger than 18 years; one group 18 to 60 years and one group

above 60 years. The reason for choosing this specific age categorisation in this study, is because at higher levels of care, geriatric (>60 years) and children and adolescents are separated from adult mental health services. 95% Confidence intervals for means were provided to estimate population parameters. Categorical data (ICD10 codes and prevalence of mental disorders) were analysed using frequency distributions indicating absolute and relative counts.

Results:

1. Demographics of the patient population at the mental healthcare clinic:

The socio-demographic characteristics of the patients attending the mental health clinic are summarised in table 1.

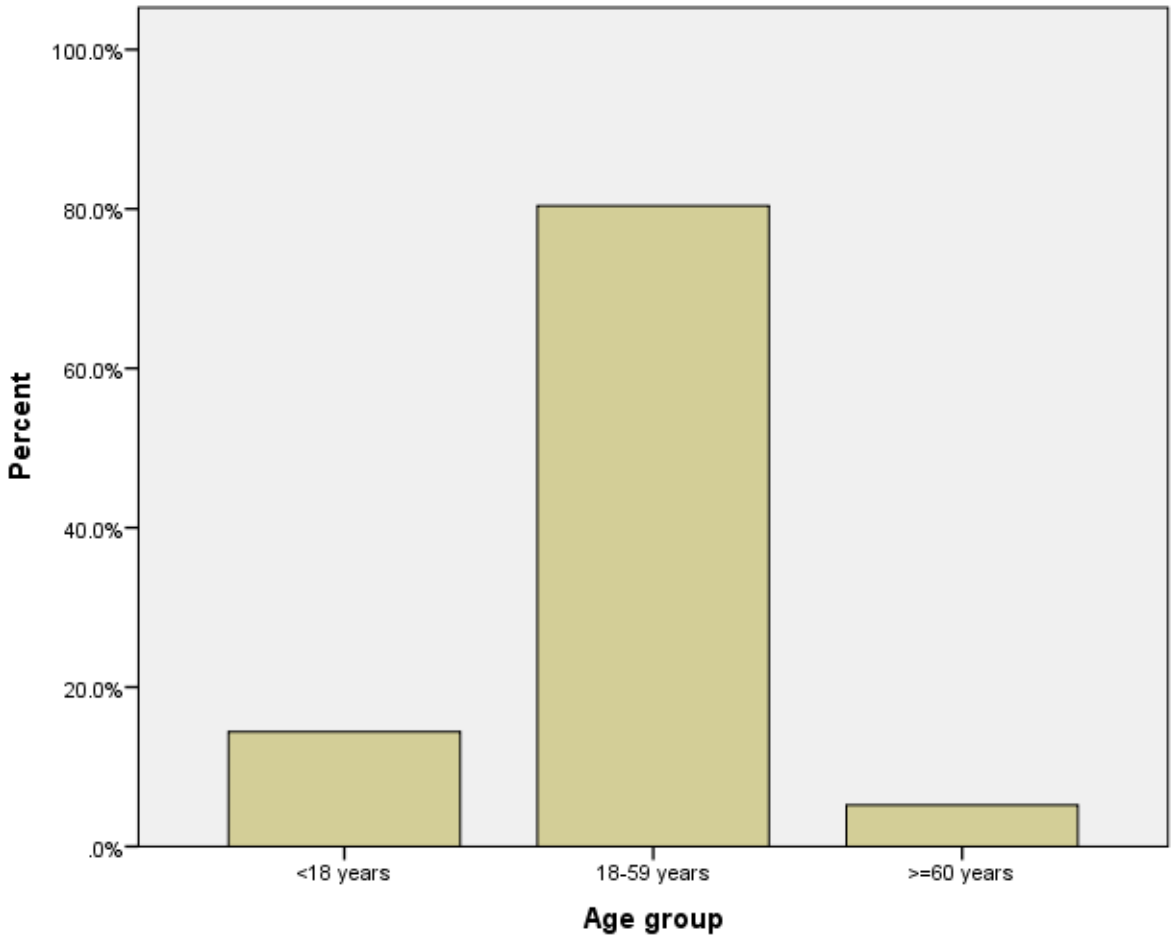
Table 1: Socio-demographic characteristics of participants attending primary care psychiatric clinic by year (N= total; n= %)

Variable	2010	2011	2012	2013	2014	Total
Age:						
<18	3 (6.0)	10 (20.0)	4 (8.0)	7 (14.0)	12 (24.0)	36 (14.4)
18-59	42 (84.0)	40 (80.0)	45 (90.0)	39 (78.0)	35 (70.0)	201 (80.4)
>60	5 (10.0)	0 (0.0)	1 (2.0)	4 (8.0)	3 (6.0)	13 (5.2)
Gender:						
Male	27 (54.0)	23 (46.0)	19 (38.0)	19 (38.0)	25 (50.0)	113 (45.2)
Female	23 (46.0)	27 (54.0)	31 (62.0)	31 (62.0)	25 (50.0)	137 (54.8)
Language:						
Afrikaans	27 (54.0)	18 (36.0)	28 (56.0)	24 (48.0)	25 (50.0)	122 (48.8)
English	11 (22.0)	23 (46.0)	16 (32.0)	23 (46.0)	21 (42.0)	94 (37.6)
Xhosa	11 (22.0)	9 (18.0)	6 (12.0)	3 (6.0)	4 (8.0)	33 (13.2)
Other	1 (2.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.4)
Education:						
None	1 (2.0)	1 (2.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.8)
Primary school	3 (6.0)	4 (8.0)	1 (2.0)	5 (10.0)	11 (22.0)	24 (9.6)
High school	8 (16)	17 (34.0)	17 (34.0)	13 (26.0)	14 ((28.0)	69 (27.6)
Tertiary level	0 (0.0)	4 (8.0)	2 (4.0)	2 (4.0)	0 (0.0)	8 (3.2)
Unspecified	38 (76.0)	24 (48.0)	30 (60.0)	30 (60.0)	25 (50.0)	147 (58.8)
Employment:						
Unemployed	29 (58.0)	25 (50.0)	25 (50.0)	21 (42.0)	26 (52.0)	126 (50.4)
Employed	6 (12.0)	6 (12.0)	12 (24.0)	8 (16.0)	3 (6.0)	35 (14.0)
Unspecified	15 (30.0)	19(38.0)	13 (26.0)	21 (42.0)	21 (42.0)	89 (35.6)
Unemployed with Disability Grant	7 (14.0)	4 (8.0)	4 (8.0)	2 (4.0)	1 (2.0)	18 (7.2)
Residence:						
Formal	37 (74.0)	38 (76.0)	39 (78.0)	35 (70.0)	36 (72.0)	182 (72.8)
Informal	13 (26.0)	12 (24.0)	14 (28.0)	15 (30.0)	14 (28.0)	68 (27.2)
Ethnicity:						
White	18 (36.0)	21 (42.0)	20 (40.0)	15 (30.0)	14 (28.0)	88 (35.2)
Black	12 (24.0)	12 (24.0)	13 (26.0)	10 (20.0)	10 (20.0)	57 (22.8)
Coloured	19 (38.0)	17 (34.0)	17 (34.0)	25 (50.0)	26 (52.0)	104 (41.6)
Other	1 (2.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.4)

Table 2: Age distribution by year:

	2010	2011	2012	2013	2014
Mean Age	38.3	29.6	31.7	34.8	31.2
Standard deviation	15.0	13.3	12.5	15.7	15.9
Minimum	9	5	11	4	4
Maximum	76	55	73	73	80

Graph 1: Combined Age distribution by years of patients seen at Primary healthcare psychiatric clinic, 2010-2014



2. Type and frequency of psychiatric conditions treated:

Results are summarised in table 3.

Table 3: Most common Psychiatric Disorders treated over 5-year period N (total); n (%) N=250

	Psychiatric Diagnosis	2010	2011	2012	2013	2014	Total
1.	Major depressive disorder – Recurrent Moderate (F33.1)	8 (16.0)	14 (28.0)	10 (20.0)	14 (28.0)	16 (32.0)	62 (24.8)
2.	Schizophrenia (F20.9)	23 (46.0)	9 (18.0)	6 (12.0)	6 (12.0)	5 (10.0)	49 (19.6)
3.	Psychosis Unspecified (F29.X)	3 (6.0)	5 (10.0)	7 (14.0)	6 (12.0)	10 (20.0)	31 (12.6)
4.	Cannabis Induced Psychosis (F12)	3 (6.0)	2 (4.0)	6 (12.0)	4 (8.0)	5 (10.0)	20 (8.0)
5.	Stimulant induced Psychosis (F15)	3 (6.0)	1 (2.0)	8 (16.0)	2 (4.0)	4 (8.0)	18 (7.2)
6.	Bipolar disorder unspecified (F31.9)	6 (12.0)	4 (8.0)	3 (6.0)	3 (6.0)	2 (4.0)	18 (7.2)
7.	ADHD (F90.9)	3 (6.0)	4 (8.0)	2 (4.0)	2 (4.0)	4 (8.0)	15 (6.0)
8.	No diagnosis (Z00.4)	0 (0.0)	3 (6.0)	1 (2.0)	6 (12.0)	4 (8.0)	14 (5.6)
9.	Personality Disorder (F60.9)	1 (2.0)	3 (6.0)	7 (14.0)	3 (6.0)	0 (0.0)	14 (5.6)
10.	MDD Recurrent with psychotic features (F33.3)	1 (2.0)	3 (6.0)	4 (8.0)	3 (6.0)	1 (2.0)	12 (4.8)
11.	MDD Recurrent Severe without psychotic features (F33.2)	1 (2.0)	1 (2.0)	4 (8.0)	1 (2.0)	4 (8.0)	11 (4.4)
12.	Anxiety Disorder Unspecified (F41.9)	0 (0.0)	1 (2.0)	6 (12.0)	0 (0.0)	3 (6.0)	10 (4.0)
13.	Psychosis due to general medical condition (F06.0)	3 (6.0)	1 (2.0)	0 (0.0)	3 (6.0)	0 (0.0)	7 (2.8)
14.	General Anxiety Disorder (F41.1)	1 (2.0)	2 (4.0)	1 (2.0)	2 (4.0)	1 (2.0)	7 (2.8)
15.	Alcohol induced Disorder (F10)	2 (4.0)	1 (2.0)	1 (2.0)	1 (2.0)	1 (2.0)	6 (2.4)
16.	Other Substance Induced Disorder (F19)	0 (0.0)	2 (4.0)	0 (0.0)	3 (6.0)	1 (2.0)	6 (2.4)
17.	Major cognitive disorder in vascular disease) (F01.9)	3 (6.0)	0 (0.0)	1 (2.0)	0 (0.0)	0 (0.0)	4 (1.6)
18.	Panic Disorder (F41.0)	1 (2.0)	2 (4.0)	0 (0.0)	1 (2.0)	0 (0.0)	4 (1.6)
19.	Opioids Induced Disorder (F11)	1 (2.0)	1 (2.0)	1 (2.0)	0 (0.0)	1 (2.0)	4 (1.6)
20.	PTSD (F43.1)	0 (0.0)	1 (2.0)	1 (2.0)	0 (0.0)	1 (2.0)	3 (1.2)
21.	MDD Single episode (F32.9)	0 (0.0)	0 (0.0)	1 (2.0)	1 (2.0)	1 (2.0)	3 (1.2)
22.	Disruptive Mood Dysregulation Disorder (F34.8)	0 (0.0)	0 (0.0)	1 (2.0)	0 (0.0)	2 (4.0)	3 (1.2)
23.	Obsessive- compulsive disorder (F42.9)	0 (0.0)	2 (4.0)	1 (2.0)	0 (0.0)	0 (0.0)	3 (1.2)
24.	Major neurocognitive diagnosis in Alzheimer's disease (F00.9)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.0)	1 (0.4)
25.	Personality changes due to general Medical condition (F07.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.0)	0 (0.0)	1 (0.4)
26.	Mood Disorder due to general medical condition (F06.3)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.0)	0 (0.0)	1 (0.4)
27.	Social Anxiety Disorder (F40.1)	0 (0.0)	0 (0.0)	1 (2.0)	0 (0.0)	0 (0.0)	1 (0.4)
28.	Cocaine induced use disorder (F14)	0 (0.0)	0 (0.0)	1 (2.0)	0 (0.0)	0 (0.0)	1 (0.4)
29.	Bipolar Disorder II- most recent episode Hypomania /depressed (F31.8)	0 (0.0)	0 (0.0)	1 (2.0)	0 (0.0)	0 (0.0)	1 (0.4)
30.	Major depressive disorder (F33.9)	0 (0.0)	0 (0.0)	1 (2.0)	0 (0.0)	0 (0.0)	1 (0.4)

Table 4: Percentage of Combined Disorders 2010-2014 N: Total ; n (%); N=250

Total of Combined	2010	2011	2012	2013	2014	Total
Total combined Mood Disorders	16 (32.0)	22 (44.0)	26 (52.0)	22 (44.0)	27 (54.0)	113 (45.2)
Total combined Depression	10 (20.0)	18 (36.0)	21 (42.0)	19 (38.0)	25 (50.0)	93 (37.2)
Total combined Psychosis	26 (52.0)	15 (30.0)	13 (26.0)	12 (24.0)	15 (30.0)	81 (32.4)
Total combined Substance induced disorders	9 (18.0)	7 (14.0)	17 (34.0)	10 (20.0)	12 (24.0)	55 (22.0)
Total combined Anxiety disorders	2 (4.0)	5 (10.0)	8 (16.0)	3 (6.0)	4 (8.0)	22 (8.8)

3. The role of the nurse vs. the role of the doctor:

The mean number of visits per patient over a one-year period ranged from 4 to 6 visits. During the first consultation, the majority of patients were seen by professional nurses with advanced psychiatric training. First consultation by a doctor could either be by the intern doctor or psychiatry registrar who rotate at this clinic as part of their training. However, this was not always clear in the folder. (Table 5)

Table 5: Clinic Visit by Psychiatric Sister and Doctor: N=250

	2010	2011	2012	2013	2014	Total
First Consultation by Psychiatric Nurse	28 (56.0)	31(62.0)	20 (40.0)	28 (56.0)	28 (56.0)	135 (54.0)
First Consultation by Doctor	19 (38)	19 (38)	30 (60.0)	21 (42.0)	22 (44)	111 (44.4)
First Visit Not specified	3 (6.0)	0 (0.0)	0 (0.0)	1 (2.0)	0 (0.0)	4 (0.6)
Total Number of Visits per patient per year (Mean)	6	5	4	4	4	4
Percentage of total visits to psychiatric nurse over 1- year period	58.6	55.0	38.3	59.2	52.3	52.6
Percentage of total visits to doctor ove1- year period	41.4	45.0	61.7	40.8	47.7	47.4

4.Original source of referral to the clinic

Results are summarised in table 6. **Table 6: Source of Referral Cohort n= 250**

Source of Referral	2010	2011	2012	2013	2014	Total
Specialised Psychiatric Hospital	23 (46.0)	9 (18.0)	8 (16.0)	9 (18.0)	6 (12.0)	55 (22.0)
Kraaifontein CHC	3 (6.0)	7 (14.0)	7 (14.0)	14 (28.0)	12 (24.0)	43 (17.2)
Self- referred	1 (2.0)	15 (30.0)	11 (22.0)	7 (14.0)	8 (16.0)	42 (16.8)
Private GP	2 (4.0)	9 (18.0)	13 (26.0)	6 (12.0)	3 (6.0)	33 (13.2)
Unclear	0 (0.0)	3 (6.0)	1 (2.0)	8 (16.0)	8 (16.0)	26 (10.4)
District Hospital	6 (12%)	3 (6.0)	5 (10.0)	4 (8.0)	2 (4.0)	20 (8.0)
Local clinic	0 (0.0)	3 (6.0)	1 (2.0)	8 (16.0)	8 (16.0)	20 (8.0)
Primary school	0 (0.0)	2 (4.0)	1 (2.0)	1 (2.0)	7 (14.0)	11 (4.4)
Total	50 (100.0)	50 (100.0)	50 (100.0)	50 (100.0)	50 (100.0)	250 (100.0)

5. Presence of co-morbid disorders:

Results are summarised in table 7-8.

Table 7: Total Number of Co-morbid diseases per patient over the 5-year period n=250

Number of co-morbid illnesses	2010	2011	2012	2013	2014	Total
0	37 (74.0)	40 (80.0)	33 (66.0)	31 (62.0)	31 (62.0)	172 (68.8)
1	8 (16.0)	5 (10.0)	11 (22.0)	10 (20.0)	12 (24.0)	46 (18.4)
2	2 (4.0)	4 (8.0)	6 (12.0)	9 (18.0)	7 (14.0)	28 (11.2)
3	2 (4.0)	1 (2.0)	0 (0.0)	0 (0.0)	0 (0.0)	3 (1.2)
4	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)
5	1 (2.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.4)

Table 8: Most common co-morbid illnesses observed among psychiatric patients over 5-year period (N: total; n: %)

	Co-morbid illness	2010	2011	2012	2013	2014	Total
1.	Hypertension (I10. X)	7 (14.0)	5 (10.0)	8 (16.0)	7 (14.0)	8 (16.0)	35 (14.0)
2.	Epilepsy (G40.9)	4 (8.0)	0 (0.0)	2 (4.0)	3 (6.0)	1 (2.0)	10 (4.0)
3.	Chronic headache unspecified (G44.8)	0 (0.0)	3 (6.0)	4 (8.0)	1 (2.0)	0 (0.0)	8 (3.2)
4.	Head injury (S09.9)	2 (4.0)	1 (2.0)	0 (0.0)	4 (8.0)	0 (0.0)	7 (2.8)
5.	Human Immunodeficiency virus (B24.X)	0 (0.0)	1 (2.0)	0 (0.0)	2 (4.0)	4 (8.0)	7 (2.8)
6.	Hypercholesterolemia (E78.0)	0 (0.0)	1 (2.0)	0 (0.0)	3 (6.0)	2 (4.0)	6 (2.4)
7.	Diabetes Mellitus (E13.8)	2 (4.0)	1 (2.0)	2 (4.0)	0 (0.0)	0 (0.0)	5 (2.0)
8.	Hypothyroidism (E07.9)	3 (6.0)	0 (0.0)	0 (0.0)	1 (2.0)	1 (2.0)	5 (2.0)
9.	Ischaemic heart disease (I25.9)	1 (2.0)	1 (2.0)	1 (0.0)	1 (2.0)	0 (0.0)	4 (1.6)
10.	Asthma (J45.9)	1 (2.0)	0 (0.0)	1 (2.0)	0 (0.0)	1 (2.0)	3 (1.2)
11.	Chronic Obstructive pulmonary disease (J44.9)	1 (2.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (4.0)	3 (1.2)
12.	Cerebrovascular accident (I63.9)	0 (0.0)	0 (0.0)	1 (2.0)	1 (2.0)	1 (2.0)	3 (1.2)
13.	Osteoarthritis (M19.9)	0 (0.0)	1 (2.0)	1 (2.0)	0 (0.0)	1 (2.0)	3 (1.2)
14.	Neurosyphilis (A53.9)	0 (0.0)	1 (2.0)	0 (0.0)	1 (2.0)	1 (2.0)	3 (1.2)
15.	Syphilis (A53.9)	0 (0.0)	1 (2.0)	0 (0.0)	1 (2.0)	1 (2.0)	3 (1.2)
16.	Pregnant (Z34)	0 (0.0)	0 (0.0)	2 (4.0)	0 (0.0)	0 (0.0)	2 (0.8)
17.	Cardiac failure (I50.9)	1 (2.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.4)
18.	Deep vein thrombosis (I82.9)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.0)	1 (0.4)
19.	Gout (M10.9)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.0)	0 (0.0)	1 (0.4)
20.	Lower back pain (M54.5)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.0)	0 (0.0)	1 (0.4)
21.	Lymphoma (C91.5)	0 (0.0)	1 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (0.4)
22.	Migraine (G43.9)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.0)	0 (0.0)	1 (0.4)
23.	Osteoporosis (M81.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.0)	1 (0.4)
24.	Pulmonary TB (A15.9)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.0)	0 (0.0)	1 (0.4)
25.	Rheumatoid arthritis (M05.9)	0 (0.0)	0 (0.0)	0 (0.0)	0 (.0)	1 (2.0)	1 (0.4)

6. Treatment outcomes of patients during this period

Results are summarised in Table 9.

Table 9: Treatment outcome after 5-year period n=250)

Treatment Outcome	2010	2011	2012	2013	2014	Total
Stable on treatment	28 (56.0)	20 (40.0)	14 (28.0)	15 (30.0)	17 (34.0)	94 (37.6)
Referred to District Hospital for higher level of care	11 (22.0)	15 (30.0)	18 (36.0)	21 (42.0)	13 (26.0)	78 (31.2)
Lost to follow up	7 (14.0)	10 (20.0)	16 (32.0)	10 (20.0)	15 (30)	58 (23.2)
Discharged	2 (4.0)	3 (6.0)	1 (2.0)	2 (4.0)	2 (4.0)	10 (4.0)
Transferred	0 (0.0)	2 (4.0)	1 (2.0)	1 (2.0)	3 (6.0)	7 (2.8)
Unclear	2 (4.0)	0 (0.0)	0 (0.0)	1 (2.0)	0 (0.0)	3 (1.20

7. Look for trends over time

Most socio-demographic characteristics remained consistent over the 5- year period as illustrated in Table 1. There was however a steady increase in co-morbid illnesses as demonstrated in Table 8. The depressive disorders climbed steadily over the five years (Table 3-4) and Hypertension was the most frequent co- morbid illness throughout the 5- year period (Table 8). In 2011 Schizophrenia was diagnosed far more frequently versus Unspecified psychosis in 2014. (Table 3) The source of referral to the mental health clinic has also changed over the 5- year period with the majority of patients referred by psychiatric hospitals in 2010 compared to more from the CHC in 2014. (Table 6)

Discussion:

Main findings:

The results of this study demonstrate that primary care psychiatry services play a significant role in management of mentally ill patients, similar to findings in the literature. (26-27) It has also demonstrated that a wide spectrum of mental health disorders is managed at primary care level.

The mood disorders and psychosis were the most frequent diagnoses in this study. This is similar to the findings of the Cape Town study by Motsohi et al, but different to population based studies such as the SASH study, which found the anxiety disorders to be the most prevalent lifetime disorders. (5;14) The World Mental Health surveys, which are representative community surveys, demonstrated that mental disorders such as anxiety, mood, externalising (e.g. ADHD) and substance use disorders were among the most prevalent. (10) In this study at Kraaifontein CHC, the anxiety and externalising disorders were lower on the list of most frequent mental illnesses treated over the five- year period. (Table 3). This could be explained by the fact that only patients attending the mental health clinic run by a nurse with advanced training were included in this study, versus the whole CHC's patient population. However, the findings of Motshoi, which was taken from a general CHC population, also did not find the anxiety disorders to be the most prevalent. This all shows that anxiety disorders are likely undiagnosed by primary care clinicians, or that patients don't seek help for these disorders. Another study that looked at the mental health service use for depression, anxiety and substance abuse, found that only 25,2% of respondents with a mental disorder, had sought help within the previous 12 months. (9)

From table 3 it is clear that substance abuse, causing cannabis and stimulant induced psychosis has also contributed a lot to the most frequent mental disorders treated. The numbers did not fluctuate much over the five-year period. The group of unspecified psychoses might also affect these numbers and one needs to wonder if the unspecified psychosis could be due to substance use. The need for facilities where patients with substance induced disorders can get help and be rehabilitated as part of their journey to wellness, forms an integral part of their management. Most often, the health sector depends on NGO's to provide this necessary service.

Kessler, et al has emphasised that many mental health disorders which begin in childhood and adolescence have significant adverse effects on subsequent role transitions. These include reduced educational attainment, early marriage, marital instability and low occupational and financial status among this group. Adult mental health disorders have also been associated with high role impairments, such as impairments in patient's ability to carry out daily activities in both productive and social roles. (10). A study by Davis, et.al showed that approximately 1 in 5 children and adolescents suffer from a

mental disorder and these often persist into adulthood. Factors that make this group more vulnerable in South Africa include HIV infection, substance use, and exposure to violence. They found that there needs to be improved services for these patients. [28] This current study has demonstrated that mental health problems are present among all age groups. It has also shown that the very young are at risk of mental health problems and therefore the healthcare systems need to be adequately equipped to actively screen children for mental health problems. A study by Lund et al. has identified substantial shortcomings in existing child and mental health services in South Africa and have identified a target model which is necessary to upscale such services [30]. The elderly is another vulnerable group that should not be overlooked.

This study also looked at the home language of patients and found that patients spoke 1 of 3 languages with the majority not being English. The need for patients to be understood when consulting psychiatry services is essential. Interpreters are not always available and also interfere with the confidentiality between the clinician and patient, especially when dealing with sensitive issues. Therefore, primary healthcare facilities offering mental health services should try make provision for the main languages of the population they serve to optimally care for their patients. At this clinic, patients could be consulted in their home language as the mental health clinic has 1 sister who speaks both Afrikaans and English and the other is fluent in Afrikaans, English and Xhosa.

According to Census 2011, about 64% of the population of Kraaifontein aged 20 years old and older have completed grade 12 or higher and approximately 92% of those aged between 15 to 64 years are employed. This study's results, however, showed that the majority of patients who attended the mental health clinic over the 5- year period clinic was not employed (50.4%) versus 14% who were employed. The rest was not specified. Of the unemployed group only a small portion, 7.2%, received a disability grant. The results indicate that unemployment is a common phenomenon among mental health patients. This can be interpreted in various ways. The nature of the mental illness and disability associated with the disease is often underestimated and interferes with their ability to perform in the open labour market. This finding might also indicate that people with mental health problems are discriminated against when it comes to fair job allocation. This may also indicate that unemployment is a major contributing factor to the development of mental health problems. This study has also revealed that the majority of patients with mental disorders were in their thirties over the five- year cohort. This is at a time when they should be functioning optimally in their different life roles and establishing themselves.

Currently this mental health clinic does not have a social worker. This is a gap in this mental health clinic which needs to be addressed. This could also explain why only a small portion of unemployed patients are receiving a disability grant. Even though it is the aim to have as many patients return to work and contribute to their families and the greater economy, a temporary disability grant can alleviate a lot of financial distress as patients recover from illnesses which are known to take time in stabilising.

The findings of this study has further highlighted the fact that apart from their psychiatric diagnosis, almost a third of mental health patients at this clinic have concomitant co- morbid disorders that further contribute to morbidity and mortality. This study has identified a wide spectrum of co-morbid illnesses among psychiatric patients including hypertension, epilepsy, chronic headache, diabetes, TB and HIV. Hypertension was the most frequent co- morbid illness in all cohorts over the 5- year period. The presence of HIV among psychiatric patients also increased from 2010 to 2014. These results demonstrate the importance of screening for chronic illnesses among the mental health patients as well as screening for mental illness among those with chronic illnesses such as HIV and Hypertension. These conditions should also be actively managed in the same way as for non-mental health clients, but keeping in mind that mental illness can sometimes contribute to patients having difficulty adhering to treatment regimens or lifestyle changes. As our primary health care clinics aim to provide an integrated service to our patients, the question arises as to who can, or should, provide both the psychiatric and “other” chronic care simultaneously, to prevent a patient having to see multiple practitioners, possibly on different days or even different sites. This is one of the challenges primary health care clinics and mental health patients face these days.

The majority of patients at this mental health clinic were seen by professional nurses with advanced psychiatry training. One must also remember that other doctors or clinical nurse practitioners in the clinic could also be addressing mental health needs of their patients and these patients are not included in the mental health clinic database.

Hospitals, including both psychiatry hospitals and district hospitals, referred the majority of mental health patients over the five- year period, compared to those referred from primary care or self-referred. The psychiatry hospital discharges were more frequent in 2010 and declined in 2014 though. These results indicate that patients presented initially with their mental illness in such an acute condition, that they needed immediate admission and not first via the CHC. This implies that most mental illness is picked up and managed only when it is already severe. Action is needed in terms of educating our communities as to the early signs of mental illness, that treatment is available and how to access this care. Screening initiatives in both the clinic population and community is also needed.

The results of this study have also demonstrated that management of the mentally ill patient is ongoing and follows a chronic course, as only a very small number of patients were discharged over the 5- year period. A large proportion of patients (almost a third) were referred to the District level hospital for in-patient care. This highlights the fact that serious mental illness commonly occurs in primary care settings and the importance of staff to be fully equipped and trained to deal with such patients, as well as having clear referral pathways to a higher level of care. The aim of good primary mental health care, with adequate psycho-social rehabilitation and support, would be to minimise the need for such admissions. There is still much work to be done to improve this at primary care and community level. Also of concern is the 23,2% of patients lost to follow up. This means that they either sought help elsewhere without taking a formal transfer letter including all their history, or that they are likely without treatment somewhere in the community. There is a great need for a means to visit or find these patients at home and provide support or motivation to attend the clinic again. The question arises whether community based carers are able to add this to their portfolio in addition to the many tasks they already perform.

This study found that only 37% of patients were stable on treatment within or after the one-year observation/treatment period at the CHC. A further in- depth study would be needed to determine the underlying cause of why so few patients were found to be stable on treatment, and to determine which cost- effective interventions would help improve this number.

Conclusion:

Primary Healthcare Mental Health clinics play a significant role in the management of mentally ill patients and help facilitate the access to other mental health services, including higher levels of care. The mental health patients of this study have shown severe illness at initial presentation which required in- patient admission and this has highlighted the facts that these conditions are often detected too late. A comprehensive mental health service, including social work support, substance rehabilitation, screening for undiagnosed illness and psycho-social rehabilitation is needed. Those responsible for resource allocation and prioritisation of services must keep in mind the disability associated with mental illness and that without the necessary interventions, the majority of these patients cannot actively participate in economic growth or fulfil their roles in society.

References:

1. Breuer E, Meyer L, Struters H, Joska J. HIV/ AIDS and metal health research in sub- Saharan Africa: a systematic review. African Journal of AIDS Research. 2011; 10(2): 101-122.
2. Sorsdahi K, Stein DJ, Lund C. Mental Health Services in South Africa: Scaling up and future directions. African Journal of Psychiatry. May 2012.
3. Gillis L, Robertsen BA, Zabow T, Stein DJ. No health without mental health: Establishing psychiatry is a major discipline in an African Faculty of Health Sciences. SAMJ. Vol 102, No. 6.
4. Bradshaw D, Norman R, Scneider M. A clarion call for action based on refined DALY estimates for South Africa. S Afr Med J 2007;97(6); 438,440.
5. Herman A, Stein DJ, Seedat S, Heeringa SG, Moomal H, William DR. The South African Stress and Health (SASH) study: 12 –month lifetime prevalence of common mental disorders. SAMJ. May 2009, Vol 99, No 5.
6. Stein DJ, Seedat S, Herman A, Moormal H, Heeringa SG, Kessler RC, Williams DR. Lifetime prevalence of psychiatric disorders in South Africa. British Journal of Psychiatry. 2008, 192: 112-117.
7. Lund C, Petersen I, Kleintjies S, Bhana A. Mental Health services in South Africa: Taking stock. African Journal of Psychiatry. Nov 2012.
8. Chipps J, Ramlall S. Research in lower middle income countries- recommendations for a national mental health research agenda in South Africa. African Journal of Psychiatry. Nov 2012.
9. Seedat S, Williams DR, Herman A, Moomal H, Williams SL, Jackson P, Meyer L, Stein DJ. Mental health service use among South Africans for mood, anxiety and substance use disorders. SAMJ. 2009, Vol 99, No 5.
10. Kessler R, Aquilar-Gaxiola S, Alonso J, Chatterji S, Lee S, Ormel J, Bedirhan Ustun T, Wang P. The global burden of mental disorders: An update from the WHO World Mental Health (WMH) Surveys. Epidemiol Psichiatr Soc. 2009 Jan- March; 18(1): 23-33.
11. Kingston RE, Marel C, Mills KL. A Systematic review of the prevalence co-morbid mental health disorders in people presenting for substance use treatment in Australia. Drug Alcohol Rev. October 2016. doi: 10. 1111/dar.12448
12. Williams DR, Herman A, Stein DJ, Heeringa SG, Jackson PB, et al. Prevalence, Service use and Demographic Correlates of 12- Month Psychiatric Disorders in South Africa: The South African Stress and Health Study. Psychological Medicine 2008; 38:211-220.
13. Mental Healthcare in South Africa. Wikipedia. Website: http://en.wikipedia.org. March 2014
14. Motsohi TS, Isaacs AA, Manga N, Le Grange C, Roelofse M, Milligan P, Hellenberg DA, Sayed AR. Common mental disorders are not diagnosed commonly in community health centres. South African Family Practice 2015; 1 (1): 1-2.

15. Weich L, Pienaar W. Occurrence of co-morbid substance use disorders among acute psychiatric inpatients at Stikland Hospital in the Western Cape, South Africa. Afr J Psychiatry 2009; 12:213-217

16. Petersen I. Mental health service delivery in South Africa from 2000 to 2010: One step forward, one step back. SAMJ. 2011; Vol 101, No. 10.

17. Mash B, Fairall L, Adejayan O, Ikpefan O, Kumari J, Matheel S, Okun R, Yogolelo. A Morbidity Survey of South African Primary Care. PLoS ONE. 2012, Vol 7, Issue 3

18. Mash RJ. Are you thinking too much? Recognition of mental disorders in South African general practice. SA Fam Pract. 2000; 22(2): 22-27.

19. Mental Health System in South Africa: WHO-AIMS Report on Mental Health System in South Africa, 2007. http://www.who.int/mental- health/evidence/south- Africa

20. Byrne L, Wilson M, Burke K, Gaskin C, Happell B. Mental health service delivery: a profile of mental health non-government organisations in south-east Queensland, Australia. Australian health Review 38.2 (2014): 202-7.

21. South African Federation for Mental Health: http: //www.safmh.org.za

22. Thara R, Patel V. Role of non-governmental organisations in mental health in India. Indian J Psychiatry. Jan 2010; 52 (Suppl 1): S389-S395.

23. Cape Mental Health. www.capementalhealth.co.za

24. Gnome MC, Price M, Mann A. Common mental disorders among those attending primary healthcare clinics and traditional healers in urban Tanzania. BJP. 2003, 183:349-355.

25. Raguram R, Venkateswaran A, Ramakrishna J, Weiss M. Traditional community resources for mental health: a report of temple healing in India. BMJ 2002; 325 doi: http://dx.doi.org/10.1136/bmj.325.7354.38 .

26. WHO mental Disorders in Primary Care: Educational package. WHO 1998.

27. Uston TB. Sartorius N. Mental Illness in General Health Care: An International Study. Wiley& Sons; 1995

28. Davis A, Kafaar Z, Lund C, Sordahi K, Child and adolescent mental health in South Africa. Journal of child and adolescent mental health. October 2012

29. City of Cape Town 2011 Census Suburb Kraaifontein www.capetown.gov.za/en/stats/2011CensusSuburbs/

30. Lund C, Boyce G, Flisher AJ, Kafaar Z, Dawes A. Scaling up child and adolescent mental health services in South Africa: Human resource requirements and costs. Journal of Child Psychology and Psychiatry 50:9 (2009), pp 1121-1130